

REMARKS

Claims 1 and 10 have been rejected by the Examiner under 35 U.S.C. § 102(b) as being anticipated by Binley, U.S. Patent 4,746,523. Claims 1-10 have also been rejected by the Examiner under 35 U.S.C. § 102(b) as being anticipated by Oldham, U.S. Patent 2,031,786. Also, claims 3-7 have been rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Oldham in view of Simonds, U.S. Patent 6,350,114 or Murphy et al., U.S. Patent 6,769,900. These rejections are respectfully traversed.

The present invention is directed to a mold for manufacturing pellets of hot-melt ink, wherein the mold creates a mold cavity defined by a first die and a second die, wherein the ink is allowed to cool down and solidify in the mold cavity and subsequently at least one of the first and second dies is provided with heating means for remelting the surface of the ink pellets to facilitate their removal from the mold cavity.

None of the references relied upon by the Examiner, either alone or in combination, even remotely suggest a mold which is specifically designed for the manufacture of pellets of hot melt ink. Characteristic of a mold for the manufacture of pellets of hot melt ink is a fact that at least one of the dies which define the mold cavity have a wall thickness which is smaller than one-half the average diameter of the mold cavity. The thickness of the walls of the first and second dies is important because due to such a small wall thickness, the die has a very low heat capacity whereby the surface layer of the molded pellet can be remelted very quickly by heating the die. The small heat capacity of the die has the further advantage that the molten ink in the mold cavity can be cooled and solidified more rapidly, so that the productivity of the molding process

is increased. Neither the Binley reference, nor the Oldham reference recognize the importance of providing first and second dies which define the mold cavity wherein at least one of said dies has a wall thickness which is sufficiently thin to enable and effectuate the removal of the molded pellet from the mold cavity. Of course, the wall thickness of the first and second dies which define the mold cavity is important in the manufacturing of pellets of hot melt ink whereas in the case of the Binley reference which is directed to the method and apparatus for preparing a shaped ice confection product and the Oldham reference which is directed to an apparatus for making golf balls, the thinness of the dies defining the mold cavity play no significant part in the relevant processes of the two patents, and thus the references cannot possibly contemplate the importance of controlling the wall thickness of the mold cavity to achieve the Applicant's purpose.

It should be furthermore noticed that claim 1 has been amended to recite that the runner hole is disposed substantially in the center of the upper die. As can be readily understood by referring to the present specification, the hot melt ink has a relatively high melting point and tends to solidify immediately when it comes into contact with the walls of the mold cavity. As a consequence, the position of the runner hole is important. Accordingly, as noted above, claim 1 has been amended to recite that the runner hole is disposed substantially in the center of the upper die and this fact is supported in the figures as well as paragraph 18 of the present application whereas it is stated that the runner hole 22 is formed in the center of the flange. If the runner hole is disposed off-center, for example, at the side of the mold cavity, then the runner hole would become obstructed before the entire mold cavity is filled. Furthermore, preferably no other holes or openings are present in the mold as this may effect the final shape of the pellet and/or hamper the removal of the pellet from the mold.

As the Examiner will note, because the Oldham patent is concerned with making golf balls, the coating is applied to the golf ball utilizing four separate access points, that is, at the top of the mold, at the bottom of the mold, and at the sides of the mold. In such a case, it is necessary to introduce the coating material under pressure as can be verified by referring to column 2, line 18 of the Oldham patent. In addition, in the method and apparatus for preparing a shaped ice confection product as disclosed in the Binley reference, a mixture of ice particles and liquid is introduced under pressure into the side of the mold which obviously would be ineffective for manufacturing pellets of hot melt ink as defined by the present invention. Because of the deficiencies of both the Binley and Oldham references, both structurally and otherwise, it is believed that the rejection of the claims over either or both of these references is inappropriate and reconsideration thereof is respectfully requested.

The Simonds reference, is also concerned with a mold used in the manufacture of golf balls and accordingly, does not recognize the importance of controlling the thickness of the wall of the mold cavity or the position of the runner hole used for the introduction of the ink for the manufacture of ink pellets as defined by the present invention. Clearly, the Examiner, in an effort to reject the claims of the present application, is reconstructing the teachings of the references in view of the Applicants own disclosure.

It is noted, with appreciation, that the Examiner has indicated that claims 8 and 9, although objected to, would be allowable if rewritten in independent form. Accordingly, as the Examiner will note, claim 11 has been added to the present application, and newly added claim 11 representing a combination of allowable claim 8, claim 5 and original claim 1.

Accordingly, in view of the above amendments and remarks, it is now believed that the present application is in condition for allowance. In the event that the proposed amendment does not place the present application into condition for allowance, entry thereof is respectfully requested as placing the present application in better condition for appeal.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and as such, the present application is in condition for allowance.

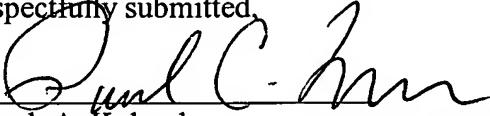
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Joseph A. Kolasch (Reg. No. 22,463) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

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Amendment dated December 20, 2005
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Art Unit 1722
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If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: December 20, 2005

Respectfully submitted,
By 
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